

Pre-Lab Exercise for *Faraday's Law and Inductance*

1. Briefly discuss the first experiment (**Faraday's Law of Induction-1**) to be carried out.

2. Predict the results of the second experiment to be carried out (**Faraday's Law of Induction-2**) by sketching the expected emf vs. time on the axes below. (Assume that the initial induced emf is positive.) On the graph, indicate the position of the magnet relative to the coil at two times.



3. Briefly discuss the third experiment (**Faraday's Law of Induction-3**) to be carried out.

4. Briefly discuss the fourth experiment (**Faraday's Law of Induction-4**) to be carried out.

5. Briefly discuss the last experiment (**Self-Inductance**) to be carried out.